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IN THE CLAIMS:

Please amend claims 23, 27, 39, 41, 47, 50, and 76 as follows:

23. (Amended) The method of 22, wherein primer oligo base extension, comprises:

- a) obtaining a nucleic acid molecule that contains a target nucleotide;
- b) optionally immobilizing the nucleic acid molecule onto a solid support, to produce an immobilized nucleic acid molecule;
- c) hybridizing the nucleic acid molecule with a primer oligonucleotide that is complementary to the nucleic acid molecule at a site adjacent to the target nucleotide;
- d) contacting the product of step c) with a composition comprising a dideoxynucleoside triphosphate or a 3'-deoxynucleoside triphosphate[s] and a polymerase, so that only a dideoxynucleoside or 3'-deoxynucleoside triphosphate that is complementary to the target nucleotide is extended onto the primer; and
- e) detecting the extended primer, thereby identifying the target nucleotide.

27. (Amended) The combination of claim 26, wherein the parameter is selected from the group consisting of ethnicity, age, gender, height, weight, alcohol intake, number of pregnancies, number of live births, vegetarians, type of physical activity, state of residence and/or length of residence in a particular state, educational level, age of parent at death, cause of parent death, former or current smoker, length of time as a smoker, frequency of smoking, occurrence of disease in immediate family (parent, siblings, children), use of prescription drugs and/or reason therefor, length and/or number of hospital stays and [ecposure] exposure

to environmental factors.

39. (Amended) The method of claim 37, wherein primer oligo base extension, comprises:

- a) obtaining a nucleic acid molecule that contains a target nucleotide;
- b) optionally immobilizing the nucleic acid molecule onto a solid support, to produce an immobilized nucleic acid molecule;
- c) hybridizing the nucleic acid molecule with a primer oligonucleotide that is complementary to the nucleic acid molecule at a site adjacent to the target nucleotide;
- d) contacting the product of step c) with composition comprising a dideoxynucleoside triphosphate or a 3'-deoxynucleoside triphosphate[s] and a polymerase, so that only a dideoxynucleoside or 3'-deoxynucleoside triphosphate that is complementary to the target nucleotide is extended onto the primer; and
- e) detecting the primer, thereby identifying the target nucleotide.

41. (Amended) The method of claim 36, wherein the target nucleic acids in the sample are detected and/or identified by a method, comprising the steps of:

- a) hybridizing a first oligonucleotide to the target nucleic acid;
- b) hybridizing a second oligonucleotide to an adjacent region of the target nucleic acid;
- c) ligating the[n] hybridized oligonucleotides; and
- [c)] d) detecting hybridized first oligonucleotide by mass spectrometry as an indication of the presence of the target nucleic acid.

47. (Amended) The database of claim 8, wherein:

the [organisms] organisms are selected from among animals, bacteria, fungi, protozoans and parasites and